

CONTINUOUS PROCESS FOR THE HYDROGENATION OF NITRILES OR
NITRO COMPOUNDS TO AMINES

Abstract of the Disclosure

The present invention relates to a process for the hydrogenation of compounds comprising nitrile or nitro functional groups to amine, aminonitrile or aminonitro compounds. The invention provides a continuous process for the hydrogenation of compounds comprising nitrile or nitro functional groups to amine or aminonitrile compounds in the presence of a heterogeneous hydrogenation catalyst in divided form and of a basic compound. The reaction is employed in a stirred reactor comprising an external loop for circulating the reaction mixture, allowing one portion of the hydrogenated products to be separated without withdrawing the catalyst, by using tangential filtration. The process of the invention applies especially to the hydrogenation of adiponitrile to an aminocapronitrile/hexamethylenediamine mixture.